

AN ENORMOUS CYST OF THE URACHUS.

EXTIRPATION AND RECOVERY.

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THE following case is reported on account of some unusual features, and because it should be added to the list reviewed by Dr. W. R. Weiser, in a most interesting and instructive article published in the *ANNALS OF SURGERY* for October, 1906.

Miss —, æt. forty. History of slowly growing abdominal tumor, beginning in the region of the bladder and growing upward, with gradual onset of pressure symptoms, especially difficult respiration, pain and impaired digestion. The abdomen was enormously distended, but not tender, nor did it bulge much in the flanks. It was rather firm, and was flat on percussion from the pubis to the ensiform cartilage. Its appearance is well shown in Figure 1.

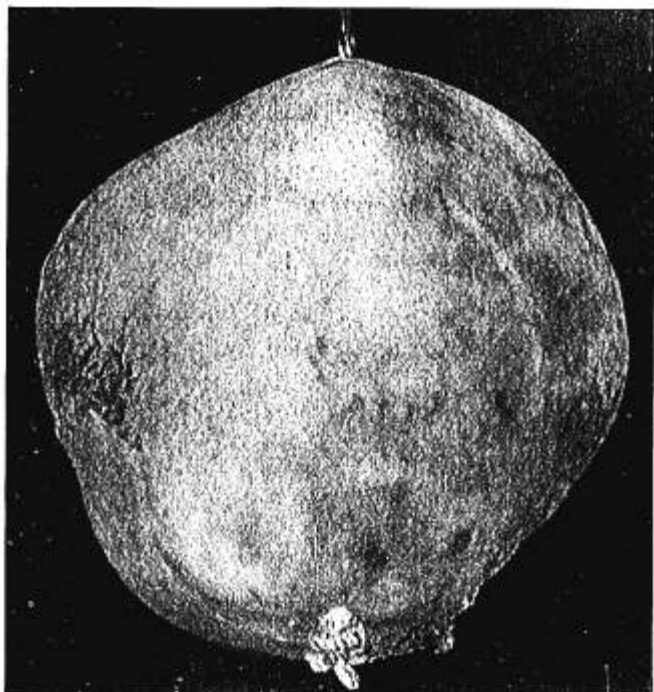
Operation, October 6, 1907.—Through the usual incision the cyst wall was perforated, and the fluid drawn off. Two-thirds came away clear; the remainder was turbid, and, lastly, thick cheesy masses were wiped out. Investigation of the inside of the sac disclosed several thick nodular masses, which were strikingly carcinomatous in character. So far, the peritoneal cavity had not been opened, the sac being situated in front of it. The task of separating the cyst wall from the peritoneum and viscera was begun by first stripping and cutting it from the epigastric region, and from beneath the ribs; and here the peritoneal cavity was opened. It was hoped that from this point downward, the dissection would be less difficult, but it was more so. The anterior surface of the peritoneum seemed to be fused with the sac, and the posterior with the viscera generally; and the character of the adhesions was the most dense ever encountered by the writer. These were followed deeply into the pelvis, in all directions, and freed; and finally the firm, fibrous attachment to the bladder was severed, and the sac removed. The appendix,

FIG. 1.



Gives a fair representation of the abdomen before operation.

FIG. 3.



The sac turned inside out, showing the nodular masses. $\frac{1}{8}$ size.

six inches in length, bright red, and surrounded by adhesions, was also removed. The abdomen, now presented a most unusual sight. With the exception of the anterior surface of the stomach, not a vestige of normal peritoneum was visible. All the abdominal contents, including tubes, ovaries, uterus and bladder, could be seen outlined through the thin, raw film of peritoneum to which they were firmly attached. The abdominal cavity was filled with normal salt solution, and closed with three layers of buried, absorbable sutures, without drainage.

Figure 2 shows some of the nodular masses. There are others on the opposite side. These were on the inner surface of the sac, which was photographed in this way: The cyst was turned inside out, and, through the incision, which had served for the evacuation of the contents, a large, thin, collapsed rubber punching bag was thrust, then inflated, thus distending the sac for photographic purposes.

The report of our hospital pathologist, Dr. Birdsall, shows the cyst wall to be fibrous; and the nodular masses, which, during operation, we feared were carcinomatous, were papillomata. Of course, in a cyst of this size, which had been growing, presumably for forty years, and subjected to the ever-increasing pressure of the accumulating fluid, we could not expect to find the normal histological features of the urachus. Naturally, all except the fibrous structures, would disappear by pressure-absorption; even bone has been known to do the same.

Post-operative Course.—The patient's condition was critical for the two following days, active stimulation and intravenous saline infusion being demanded. The wound healed by primary union, the bowels were loose; the temperature ranged from 101° to 102°. Daily palpation of the abdomen revealed fluctuation, and the percussion note was flat, showing that the salt solution was not being absorbed. This was observed with much interest. On the seventh day a chill occurred, followed by a rise in temperature to 104°. Assuming that the unabsorbed solution had become infected through the raw surface of the intestines, the lower end of the now healed wound was cocaineized and cut through, allowing the escape of quarts of the salt solution, which had become purulent, and which presented the colon bacillus characteristics. This was followed by prompt improvement. Drainage and irrigation were continued for a week, after which

the wound closed, and convalescence and return to health were satisfactory.

COMMENTS.—The density of the adhesions cannot be appreciated unless encountered. It is true incision, evacuation and drainage would probably have been successful after a long period of waiting for the cavity to undergo obliteration. The assumption, however, that portions of the sac had become carcinomatous, made extirpation seem imperative.

Extirpation is evidently not commonly resorted to. Among the 86 cases reviewed by Dr. Weiser, only 8 were extirpated. None of these were said to be large, and with one or more the history and result were lacking.

I believe it is well known that the intra-intestinal bacteria can make their way through the walls of the injured intestine; and that the normal peritoneum has most remarkable powers of absorption; but it may well be doubted if the traumatized peritoneum is capable of this performance. In spite of this it seemed better to fill the abdomen with saline solution, as there was undoubtedly great risk of bowel obstruction, if the raw surfaces were allowed to fall together.

The non-absorption of the salt solution, and its infection by the colon bacillus were phenomena which were neither unexpected nor unnatural under the circumstances.